

JC17 Rec'd PCT/PTO 07 SEP 2005

Applicant: Keith Hart

Application No.: Not Yet Known

IN THE CLAIMS

1. (Currently amended) An insertable component (1, 10), which is embodied as a non-return element that is insertable into a gas or liquid line, comprising a housing (2) with at least one closing body arranged in an interior of the housing that can be displaced into a closed position to seal a through opening or several through openings (14) of feeder channels (13), ~~characterized in that~~ the housing (2) is comprised of at least two housing parts (3, 4) having the feeder channels in at least one annular area, opening into a housing chamber, and ~~[[that]]~~ between facing sides of the two adjacent housing parts (3, 4) a housing seal (5) is provided, which is connected in one piece to at least one annular membrane (11), that can be displaced by a flow medium, the housing seal is located inside the housing chamber (12) and forms the closing body.

2. (Currently amended) An insertable component according to claim 1, ~~characterized in that~~ wherein the housing seal (5) and the at least one annular membrane (11), forming the closing body are embodied as flat bodies.

3. (Currently amended) An insertable component (1, 100, 101, 102, 103), which is embodied as through-flow regulator that is insertable into a gas or liquid line, comprising a housing (2), with at least one throttle or regulating body (15, 15') being arranged inside said housing, limiting a control gap (17, 17') between the throttle or regulating body and a housing wall (16), with the control gap changing depending on pressure, ~~in particular according to claims 1 or 2, characterized in that~~ the housing (2) is comprised of at least two housing parts (3, 4) and ~~[[that]]~~ between the facing sides of two housing parts (3, 4), a housing seal (5) is provided, which is connected in one piece to the at least one throttle body or regulating body (15, 15')

supported inside the housing.

4. (Currently amended) An insertable component according to ~~one of claims 1 through 3, characterized in that~~ claim 1, wherein the housing components (3, 4) are provided with annular surfaces, facing one another, between which the housing seal (5) is clamped.

5. (Currently amended) An insertable component according to ~~one of claims 1 through 4, characterized in that~~ claim 1, wherein a ~~preferably~~ central housing portion of a first housing part (3) engages a central recess (31) of a second housing part (4.)

6. (Currently amended) An insertable component according to ~~one of claims 1 through 5, characterized in that~~ claim 1, wherein in order to connect the housing parts (3, 4) in the mounting position, engaging snap elements are provided on the at least two housing components (3, 4).

7. (Currently amended) An insertable component according to claim 6, ~~characterized in that~~ wherein the snap elements of one of the housing parts (4) is provided with a central opening (6) and the other housing part (3) is ~~preferably~~ provided with ~~several~~ a plurality of engaging hook elements (7.)

8. (Currently amended) An insertable component according to claim 7, ~~characterized in that~~ wherein the hook elements (7) of one of the housing parts (3) engage the other housing part (4) in a mounted position and extend beyond an exterior side thereof.

9. (Currently amended) An insertable component according to ~~one of claims 4 through 8, characterized in that~~ claim 4, wherein surfaces clamping the housing seal (5) are provided at an exterior rim of the housing parts (3, 4.)

10. (Currently amended) An insertable component according to ~~one of claims 4 through 9, characterized in that~~ claim 4, wherein the interior surface of the housing part (3), arranged upstream extends inwardly beyond a clamping area of the housing seal (5) and forms a section of the housing chamber wall and ~~that here one feeder channel or several~~ more of the feeder channels open here.

11. (Currently amended) An insertable component according to claim 10, ~~characterized in that~~ wherein several of the feeder channels (13) are provided, distributed in a circumferential direction, which ~~preferably~~ open immediately adjacent to the clamping region of the annular membrane (11) forming the housing seal (5).

12. (Currently amended) An insertable component according to ~~one of claims 1 through 11, characterized in that~~ claim 1, wherein the annular membrane is extended inwardly beyond an area, forming the closing body and being adjacent on an inside to the housing seal (5) and thus forming in the open position a separating wall dividing the housing chamber (12) into two partial annular chambers (19, 20), and in this position contacting with a free interior annular rim of (23) the downstream housing part (4), ~~[[that]]~~ downstream openings (21) and through openings (14) are connected to the downstream partial annular chamber space (19) and ~~[[that]]~~ at least one return flow opening (22) opens into the downstream partial

annular chamber space (20).

13. (Currently amended) An insertable component according to ~~one of claims 3 through 12, characterized in that~~ claim 3, wherein the throttle body (15) is mounted in a housing chamber (12) between the upstream and the downstream housing part (3, 4) and ~~[[that]]~~ the downstream housing part (4) is provided with a downstream rest and an exterior support and the upstream housing part (3) is provided with an interior housing wall (16) forming a limit of the control gap or a similar rest for the annular throttle body (15.)

14. (Currently amended) An insertable component according to ~~one of claims 1 through 13, characterized in that~~ claim 1, wherein ~~[[it]] the insertable component is embodied as a non-return element~~ ~~[[or]] and as a through-flow regulator controller.~~

15. (Currently amended) An insertable component according to claim 14, ~~characterized in that~~ wherein the annular membrane (11) is embodied as a closing body located adjacent to the housing seal (5) and that it is connected in one piece at an interior end thereof to the throttle body (15).

16. (Currently amended) An insertable component according to ~~one of claims 1 through 15, characterized in that~~ claim 1, wherein it is embodied for being inserted into a liquid line and is provided on an outside thereof with an annular seal (8) for sealing it from the liquid line and ~~[[that]]~~ the annular seal (8) is connected in one piece to the housing seal (5) located between the facing sides of the housing parts (3, 4).

17. (Currently amended) An insertable component according to claim 16, ~~characterized in that~~ wherein the exterior annular seal (8) is embodied as an O-ring seal or an annular cord seal.

18. (Currently amended) An insertable component according to ~~one of claims 1 through 17, characterized in that~~ claim 1, wherein between the two adjacent housing parts (3, 4) on the outside, an annular groove (9) is provided for accepting the exterior annular seal (8) and ~~[[that]]~~ the annular groove (9) is formed by a recess in the housing that opens toward a separation point of the housing (2) on the one housing part (3) for forming a side wall and a bottom of the groove and by an interior surface of the other housing part (4) for forming the second side wall.

19. (Currently amended) An insertable component according to ~~one of claims 3 through 8 and 14, characterized in that~~ claim 1, wherein the housing seal (5) is connected on both sides to at least one throttle body (15, 15'), ~~which~~ said throttle bodies (15, 15') are each supported on the inside of said housing (2) in a control gap (17, 17').

20. (Currently amended) An insertable component according to claim 19, ~~characterized in that~~ wherein the annular housing walls (25, 25') clamping the housing seal (5) on faces therebetween separate the control gaps (17, 17') allocated to the throttle bodies (15, 15').

21. (Currently amended) An insertable component according to ~~claim 19 or 20, characterized in that~~ claim 19, wherein the throttle bodies (15, 15') provided on both sides of the housing seal (5) react to different differential pressures and that, on the

one hand, ~~[[a]]~~ the first throttle body (15) reacts preferably in a low pressure range and that, on the other hand, ~~[[a]]~~ the second throttle body (15') reacts in a high pressure range.

22. (Currently amended) An insertable component according to ~~one of claims 3 through 21, characterized in that~~ claim 1, wherein the insertable component is provided with at least one lip-shaped throttle body (15, 15').)

23. (Currently amended) An insertable component according to ~~one of claims 3 through 22, characterized in that~~ claim 1, wherein the insertable component is provided with at least one throttle body (15') embodied as an O-ring.

24. (Currently amended) An insertable component according to ~~one of claims 3 through 23, characterized in that~~ claim 1, wherein at least one lip-shaped throttle body (15, 15') is aligned with a free lip end region (30) thereof ~~preferably~~ extending diagonally opposite a through-flow direction (Pf1.)

25. (Currently amended) An insertable component according to ~~one of claims 21 through 24, characterized in that~~ claim 24, wherein the control motion of at least one lip-shaped throttle body (15, 15') is limited by a control stop.

26. (Currently amended) An insertable component according to ~~one of claims 21 through 25, characterized in that~~ claim 25, wherein at least one lip-shaped throttle body (15, 15') comprises a lip section, aligned approximately lateral to ~~[[the]]~~ a through-flow direction (Pf1), which extends into a free lip end region (30) aligned opposing the through-flow direction (Pf1.)

27. (Currently amended) An insertable component according to claim 26, ~~characterized in that~~ wherein the lip section (29), approximately aligned lateral to the through-flow direction (Pf1), cooperates with the control stop.

28. (Currently amended) An insertable component according to ~~one of claims 1 through 27~~, ~~characterized in that~~ claim 1, wherein at least one of the housing parts (3, 4) comprises at least two ~~preferably~~ approximately concentric annular walls (24, 25, 26; 24', 25', 26') connected via approximately radial connection bars (27).

29. (Currently amended) An insertable component according to claim 28, ~~characterized in that~~ wherein at least one of the connection bars (27) arranged downstream of the throttle body (27) is embodied as a control stop and/or as a throttle body support.

30. (Currently amended) An insertable component according to ~~one of claims 19 through 29~~, ~~characterized in that~~ claim 19, wherein the throttle bodies (15, 15') provided at both sides of the housing seal (5) comprise different designs, each adapted to a different reaction pressure.

31. (Currently amended) An insertable component according to claim 30, ~~characterized in that~~ wherein the throttle body (15) on one side of the housing seal (5) is connected, on one side, to a lip-shaped throttle body (15) and, the throttle body (15') on an other side of the housing seal is , to a throttle body (15') embodied as an O-ring.

32. (Currently amended) An insertable component according to ~~one of claims 19 through 30, characterized in that~~ claim 30, wherein a lip-shaped the throttle body (15, 15') is connected on each side of the housing seal (5) is lip-shaped.

33. (Currently amended) An insertable component according to ~~one of claims 21 through 32, characterized in that~~ claim 30, wherein the throttle body (15) reacting in a low pressure range is allocated to an interior or exterior control gap (17, 17').

34. (Currently amended) An insertable component according to ~~one of claims 19 through 33, characterized in that~~ claim 30, wherein the housing seal (5) and the throttle bodies (15, 15') connected thereto are formed as a multi-component die-cast part and [[that]] the throttle bodies (15, 15') are made from different elastomers.

35. (Currently amended) An insertable component according to ~~one of claims 3 through 34, characterized in that~~ claim 3, wherein at least one housing wall (16), limiting a control gap (17, 17'), is provided with a regulating profiling (24; 28, 28') extending approximately in the through-flow direction (Pf1), ~~in the form of ribs, grooves, or the like.~~